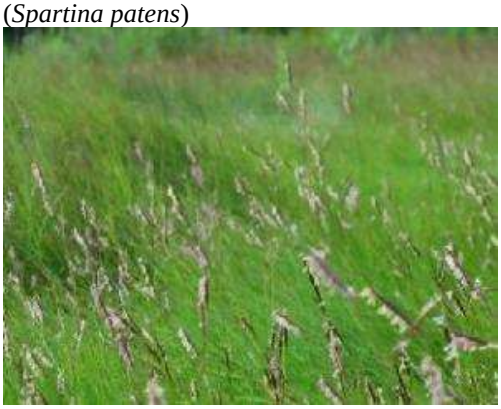
Coastal Landscaping - Plant Highlights and Images

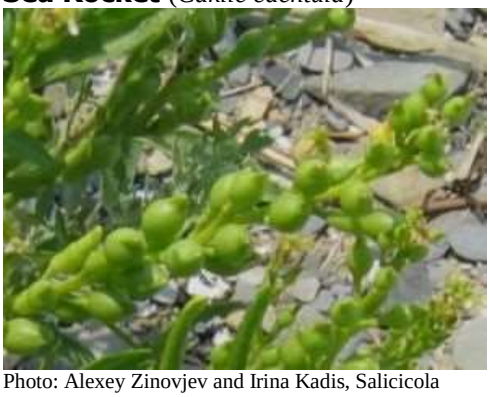
Grasses and Perennials	
American Beachgrass (*Ammophila breviligulata*)  Photo: Massachusetts Office of Coastal Zone Management (CZM)	American beachgrass is the best species for the initial stabilization of fronting dunes (the dunes closest to the beach). The strong and fast-growing underground rhizomes (root-like underground stems) spread beneath the sand and give rise to many new plants, helping to colonize the species in dune environments. Beachgrass is also tolerant of intense heat, excessive sunlight, and drying winds and will grow on sandy or other course-grained soils. The best time to plant beachgrass in New England is from October 1 to April 30, when the ground is not frozen. The plants (culms) should be spaced 18 inches apart (12 inches apart where wind is severe) and at least 8 inches deep. The culms can be placed in a staggered formation in alternate rows to provide maximum erosion control. Beachgrass tends to need the build-up of sand supplied by wind or waves to provide nutrients, avoid the build-up of thatch, and build healthy rhizomes. If sand over-topping does not happen naturally, fertilizers may be required to provide the necessary nutrients, and mowing may be necessary to prevent thatch.
 **American Dunegrass** (*Leymus mollis*) Photo: Gordon Leppig and Andrea J. Pickart, Wikimedia Commons	American dunegrass, also known as sea lyme-grass, is a native grass tolerant of salt spray and salty soils. Dunegrass grows to a height of 6 feet and forms clumps along coastal dunes and also on sand and gravel beaches. This grass species has green foliage and inconspicuous yellow flowers and brown fruits/seeds. The greatest bloom occurs in the late spring, with fruit and seed production starting in the summer and continuing until fall. American dune grass dies back under stress but comes back when conditions become favorable. Dunegrass has a long life span relative to most other plant species and a rapid growth rate. This grass is useful for soil stabilization and forage. The subspecies *mollis* is considered endangered in Massachusetts. (native)
 **Beach Pea** (*Lathyrus japonicus*) Photo: Mark W. Skinner @ U.S. Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) PLANTS Database	Beach pea is a sprawling perennial vine that grows in beach and dune environments. The leaves are divided into several segments and curling tendrils extend from leaf ends. Beach pea has showy purple or pink flowers and smooth, stalk-less seed pods that contain small peas. The peas are eaten by animals, such as deer, mice, and birds, but they are not safe for human consumption because they contain a paralyzing agent. The flowers are an attractive food sources for bees and butterflies. The beach pea's extensive native range is due to the ability of the seeds to remain viable in seawater up to 5 years. The plant can germinate when the tough seed shell is broken open by abrasion with the sand. Once established, the roots of the beach pea help bind soils of beaches and dunes. (native)

 **Big Bluestem** (*Andropogon gerardii*) Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center	Big bluestem (also known as turkey foot) is a tall, warm-season grass that grows 4 to 8 feet high. It has an upright stature, interesting flowers and seed heads that resemble a turkey's foot, and leaves that change colors throughout the seasons. Big bluestem is drought tolerant once established, thrives in both heavy and sandy soils, and is moderately tolerant of salinity. This sod-forming grass will spread vigorously by rhizomes when provided with adequate moisture, while it will have a clumping, bunchgrass appearance under more arid conditions. Big bluestem can be used as an accent in native plant gardens, as a tall screen or hedge, or to stabilize soils and/or provide protection against wind erosion. Big bluestem also provides shelter and seeds for birds and insects. (native)
Black Grass (*Juncus gerardii*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Black grass, also known as salt meadow rush or salt marsh rush, is a loosely tufted, perennial herb. It grows from 1 to 2 feet tall and has rounded stems, grass-like leaves located on the lower half of the stem, and small green-brown flowers in dense spikes or in loose clusters. The flowering and fruiting period occurs from spring through summer. This grass spreads by rhizomes and forms extensive colonies in coastal estuaries and salt marshes just above the high-tide line, where it is flooded only by the most extreme tides of each month. Black grass can also be grown on more inland sites. The rigid stems growing from fibrous roots make it a good plant for erosion control. Its adaptability to wet sites makes it a good plant for water or rain gardens, stormwater basins, low areas of the yard subject to flooding, and coastal gardens. The dense cover of black grass provides good shelter for birds and small mammals. (native)
Coastal Panic Grass (*Panicum amarum* var. *amarulum*)  Photo: USDA-NRCS PLANTS Database	Coastal panic grass, a native grass that grows to heights of 3 to 6 feet, has a deep, fibrous root system that makes it an effective stabilizer of secondary sand dunes (the dunes landward of the dune closest to the beach). Panic grass will generally only survive where other species have initially stabilized the location. This grass will tolerate moderate saline overspray, but will not tolerate large deposits of sand. Due to its upright and hedge-like form and winter persistence, panic grass is useful for creating wind barriers and for creating wildlife cover on sandy coastal soils. If the coastal variety cannot be found at local nurseries, bitter panic grass (*Panicum amarum)* or switchgrass *(Panicum virgatum)*, can also be planted on sandy soils. (not native; native to New Jersey south to Mexico)
 **Eastern Showy Aster** (*Eurybia spectabilis*) Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Eastern showy aster is a tall (1 to 2 feet), native, perennial herb with lance-shaped leaves and showy clusters of flowers (violet-purple rays surrounding a yellow disc) that bloom from August to October. Showy aster forms clones and clumps and spreads by underground rhizomes with new shoots growing at the end of the rhizomes and bases of old stems. This aster is easily cultivated and becomes well established in dry, sandy, grassland habitats. Because eastern showy aster is tolerant of offshore winds and salt spray, it is often seen in pine barrens near the shore. (native)

Indian Grass (*Sorghastrum nutans*)  Photo: Elaine Haug @ USDA-NRCS PLANTS Database	Indian grass is a tall, warm-season grass that grows from 3 to 8 feet high. In the fall, the slender, blue-green leaves of this hardy upright grass turn yellow, and the towering stiff stems topped with narrow, plume-like auburn flower heads turn deep orange or purple. Indian grass prefers full sun, is tolerant of a wide range of soil types, and is moderately drought and salinity tolerant. Indian grass can be grown in bunches or as single stems mixed with other grasses and is useful for erosion control. The seeds provide food for birds and mammals and the grass provides excellent nesting material and cover for wildlife. (native)
Little Bluestem (*Schizachyrium scoparium*)  Photo: Joseph A. Marcus, Lady Bird Johnson Wildflower Center	Little bluestem is one of the most widely distributed native grasses in North America. It is a medium-height grass with plant height ranging from 18 inches on dry sites to 3 feet on fertile soils. Little bluestem begins growth in late spring and continues through the summer until the first killing frost. It will grow on a wide variety of soils, but is adapted to well-drained, medium-to-dry, infertile soils. The plant is tolerant of drought and shade but is fairly intolerant of flooding. Because of its adaptability to a wide range of soil conditions, little bluestem is useful as a component of re-vegetation mixes and for soil stability. Little bluestem provides cover for ground birds and small mammals and the numerous seeds provide food for songbirds. (native)
Pennsylvania Sedge (*Carex pensylvanica*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Pennsylvania sedge is a low, clump-forming, grass-like perennial growing 6 to 12 inches high. This native plant with pale green, arching leaves and a cluster of brown seed capsules high on the stem forms soft 15-inch clumps that spread quickly. This sedge grows well in either sunny or shady areas, prefers dry-to-moist soils, binds the soil with its dense roots, and remains lush even in sandy soils. Though noninvasive, the creeping foliage can form dense mats that function well as a traditional lawn, yet will not require mowing, fertilizing, or chemicals. If mowing is preferred, this sedge looks best cut two to three times per year at 3 to 4 inches high. Pennsylvania sedge can be planted from plugs 6 to 12 inches on center in the fall or spring. Its rhizomatous, turf-forming habit provides excellent ground cover for wildlife, and the seeds are a source of food for a number of birds and small mammals. (native)

Pink Tickseed (*Coreopsis rosea*)  Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center	Pink tickseed is a low-maintenance, fine-textured, perennial reaching a height and spread of 1 to 2 feet. The grass-like, green leaves give an open and delicate appearance to the plant, while the pink, daisy-like flowers bloom profusely from June through September. This plant prefers full sun and medium moisture, yet can tolerate dry, shallow, and rocky soil. Plants can spread by rhizomes and can easily self-seed to form a dense bushy groundcover. The flowers attract butterflies and the seeds are eaten by birds. Pink tickseed is useful as an accent in native gardens or rock gardens, as ground cover, and as edges for borders, foundations, and paths. (This plant does best when planted away from direct exposure to salt spray.) (native)
Poverty Dropseed (*Sporobolus vaginiflorus*)  Photo: Sam C. Strickland, Lady Bird Johnson Wildflower Center	Poverty dropseed is a native, annual grass that grows about 8 to 12 feet tall and wide in a tuft-forming cluster. The culms, which are light greenish-purple and wiry, terminate in a spike-like panicle with spikelets that are pink, purple, or pale green and often shiny. Most plant growth occurs during the summer, while the blooming period occurs during the early fall. Poverty dropseed grows best in full sun, dry conditions, and barren soil containing sand or gravel, and can withstand drought conditions and drying winds. Poverty dropseed primarily spreads by reseeding itself. The seeds are also a potential food source for birds, particularly during the winter. (This grass does best when planted away from direct exposure to salt spray.) (native)
Purple Lovegrass (*Eragrostis spectabalis*)  Photo: Damon E. Waitt, Lady Bird Johnson Wildflower Center	Purple lovegrass is a native, warm season, perennial bunchgrass that grows from 1 to 3 feet in height and width (though some commercial varieties can reach heights up to 10 feet). This low-maintenance grass is tolerant of drought and full sun and performs best in sandy or gravelly soils in hot, dry locations. The showy reddish-purple flowers bloom from July to August and are valued for their soft, hazy appearance when grown in mass and for dry flower arrangements. If not cut, the flower heads tends to break off and blow like tumbleweeds, dispersing seeds as they go (deadheading the seed heads will therefore limit the reseeding and spread of this grass in the landscape). The grass can also spread by rhizomes under the ground, which makes it an effective groundcover or for mass plantings. (This grass does best when planted away from direct exposure to salt spray.) (native)
Red Columbine (*Aquilegia canadensis*)  Photo: Andy & Sally Wasowski, Lady Bird Johnson Wildflower Center	Red columbine is a perennial herb growing up to 2 feet tall with attractive, red-and-yellow, downward-facing tubular flowers that bloom from March to July. Red columbine can grow in a wide range of habitats from rich woods to rocky cliffs to beach borders. This columbine is a popular garden perennial because it is hardy, tolerates shade and a wide range of soil conditions, and can easily regenerate by seed. The flowers provide an important source of nectar for hummingbirds, bees, and butterflies. (This plant does best when planted away from direct exposure to salt spray.) (native)

Red Fescue (*Festuca rubra*)  Photo: Robert Soreng @ USDA-NRCS PLANTS Database	Red fescue is a cool season, sod-forming grass that grows up to 2 feet tall with bright green, wiry leaves and narrow panicle seed heads. Red fescue is hardy, adapted to sandy and acidic soils, and has a high tolerance for cold temperatures and shade, a moderate tolerance for drought and trampling, and a low tolerance for heat. Red fescue does not require much fertilizer or excessive amounts of water to grow. This grass is extremely useful for stabilizing the slopes of waterways and banks, as well as providing turf for lawns, athletic fields, and playgrounds. Red fescue is often found in grass seed mixtures, particularly those for shady areas. (native)
Saltmarsh (Smooth) Cordgrass (*Spartina alterniflora*)  Photo: USDA-NRCS PLANTS Database	This long-lived, perennial grass is primarily found on the tidal areas of open coastal marshes and therefore tolerates regular inundations. The plant grows to 7 feet tall and spreads by long, hollow rhizomes. The flat leaf blades are typically 12 to 20 inches long. Saltmarsh cordgrass is often planted for shoreline protection and tidal marsh restorations (the root system helps stabilize the marsh mud). Hand planting of the stems is the best way to establish plants—up to 2 feet of lateral spread can be expected annually. Besides acting as habitat for other plants and animals, the roots and shoots of cordgrass provide food for wetland mammals and waterfowl. (native)
Saltmeadow Cordgrass (*Spartina patens*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	This native, perennial grass grows from 1 to 3 feet tall and spreads extensively by long, slender rhizomes. Although typically associated with tidal salt marshes, saltmeadow cordgrass also naturally occurs in back dune areas, particularly within dune troughs (low points between dunes). It is dominant in these areas since most other sand dune species cannot tolerate wet- to saturated-soil conditions. Saltmeadow cordgrass will tolerate irregular inundations with significant amounts of salinity. The trailing rhizomes of saltmeadow cordgrass are slender but form dense mats near the surface, offering effective sand dune stabilization. It can be grown and established on normal sites using freshly harvested stems (culms) or containerized plants. From late June to October, an inflorescence emerges at the end of the stem. Saltmeadow cordgrass also provides food and cover to a number of animals. (native)
Sea Lavender (*Limonium carolinianum*)  Photo: Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center	Sea lavender, also known as lavender thrift or seaside thrift, is a perennial, salt-marsh plant that grows 1 to 2 feet high and has abundant, small, pale-purple flowers on branching clusters. Sea lavender blooms create the appearance of a delicate purple mist on the salt marsh during the late summer and early fall. This plant is adapted to a wide range of soil textures, but requires plentiful moisture. The moderate growth of sea lavender is primarily through its horizontal rhizomes, rather than seed. Because sea lavender's attractive calyx (the outer enclosure of the flower) remains on the plant when the true flowers are gone, it is often grown for the flowers and used in dried flower arrangements. (native)

Sea Rocket (*Cakile edentula*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Sea rocket is a native perennial, growing 6 to 20 inches in size, with pale lavender to white flowers that bloom from July to September. Sea rocket is found on beaches above the high tide line and sometimes in dunes. Sea rocket prefers sunny locations with sandy, well-drained soils. It can grow in nutritionally poor soil and can tolerate strong winds. The stems and leaves are fleshy. The flowers are pollinated by bees, flies, beetles, moths, and butterflies. The seeds are dispersed through the fruits that break into segments and are able to travel distances in the water before washing ashore, breaking open, and generating new growth. (native)
Seabeach Sandwort (*Honckenya peploides*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Seabeach sandwort is a hardy, perennial herb with numerous stems and succulent leaves that grows from 4 to 16 inches high. The honey-scented, white-to-pale-yellow flowers bloom from May to August and are pollinated by insects, wind, wind-blown sand, or self-pollination. Seabeach sandwort is commonly found growing on sandy coastal beaches and dunes and is tolerant of salt spray and occasional salt-water immersion. Seabeach sandwort requires an open, sunny position and prefers well-drained, light-sandy or medium-loamy soils, both of which can be nutritionally poor. This plant spreads by rhizomes and is able to effectively form clumps or mats, which is particularly useful for beach and dune stabilization and dune formation. (native)
Seaside Goldenrod (*Solidago sempervirens*)  Photo: National Oceanic and Atmospheric Administration (NOAA) Estuarine Research Reserve Collection, NOAA Photo Library	Seaside goldenrod is a native perennial that is well adapted to the landward side of fronting dunes, low secondary dunes, and edges of salt marshes. The fleshy, waxy leaves growing abundantly along the entire length of the stem help retain moisture that would otherwise be lost to the drying effect of salt spray. The plant typically grows 3 to 5 feet tall. In late winter, red leaves arise through the sand surface and soon become dark green. In late summer and early fall, the bright yellow flowers—which are larger than those of the typical goldenrod—provide a striking contrast to the green vegetation. (native)
Spike Grass (*Distichlis spicata*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Spike grass, or seashore salt grass, is a grey-green, perennial grass that grows from 1 to 3 feet high with wiry, stiff stems and flat, short leaves along the stems. The yellowish flower panicles bloom from June to October and turn tan as they dry. Spike grass forms dense mats, spreading by rhizomes and sometimes stolons (horizontal stems near the soil surface) and can rapidly colonize new areas. This grass commonly forms patches in the high salt marsh but can also be found in the troughs of back dune areas and in salt or mud flats along the coast. Though well adapted to wet sites, spike grass shows a high drought tolerance and has been documented as growing in drier forest sites and desert scrub habitats. Spike grass provides excellent nesting grounds for birds, fish, and larvae of many species of marine invertebrates. (native)

Sweet Goldenrod (*Solidago odora*)  Photo: Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center	Also known as anise-scented goldenrod because the leaves give off the scent of licorice when crushed, this clump-forming perennial herb can grow from 2 to 5 feet high. The dark-green, lance-shaped leaves can be used in teas and as an herbal remedy for many ailments. The flowers—large, bright yellow terminal clusters—appear in late summer and continue to bloom into mid fall. Sweet goldenrod is well adapted to dry, open habitats and acidic and sandy soils and is extremely drought tolerant once established. It tolerates partial shade, but performs best in full sun. Sweet goldenrod is commonly found in the woods and fields across the coastal regions of Massachusetts but can be used for borders or in flower and herb gardens. Goldenrods provide nectar for bees and butterflies and seeds for many song birds—and contrary to popular belief, it is ragweed, not goldenrod, that causes seasonal allergies. (This plant does best when planted away from direct exposure to wind and salt spray.) (native)
Switchgrass (*Panicum virgatum*)  Photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center	Switchgrass is a perennial, clump-forming, warm-season grass, 3 to 6 feet high, with open, lacy sprays and reddish-purple seedheads. New foliage emerges fresh from the base in spring, and the bright green leaves that grow along the stem turn bright yellow in the fall. Switchgrass is well adapted to a wide range of soil conditions, ranging from shallow and dry soils to poorly drained sites and even brackish marshes. Its adaptability to both wet and dry conditions makes it an appropriate choice for a rain garden. Switchgrass, with its deep, fibrous roots, is an excellent soil stabilizer on banks, sand dunes, and other erosion-prone areas. It can also provide a low windbreak for other plants. Switchgrass provides cover, nesting material, and seeds for birds and small mammals. (native)
Wavy Hairgrass (*Deschampsia flexuosa*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Wavy hairgrass is a fine-textured, cool-season bunchgrass that grows from 8 to 12 inches high. It has delicate, spray-like spring flower heads on wavy, hair-like evergreen stems. The soft texture and tiny masses of seed heads effectively catch the sunlight. Wavy hairgrass is tolerant of shade, is very winter hardy, offers fall and winter seeds for birds and small mammals, and has a clump-forming habit that provides protective cover for many species of wildlife. (This grass does best when planted away from direct exposure to salt spray.) (native)

Shrubs and Groundcovers

Arrowwood Viburnum (*Viburnum dentatum*)

Photo: University of Connecticut Plant Database

Arrowwood viburnum is a dense, multi-stemmed shrub that typically grows 5 to 9 feet tall and wide. The branches are upright and spreading and arch at the tips. The leaves are either a shiny or flat dark green and turn yellow or red to red-purple in the late fall. The showy flowers are small, white, flattened clusters, which bloom late May to early June. The fruit, which can be of an intense blue color, is ornamental and a food source for birds. Arrowwood is very easy to grow, being well adapted to full sun or partial shade and to dry or fairly wet soils. Arrowwood is useful for its hardiness, as a border or screen, for naturalized plantings, to attract birds, and for difficult sites. This shrub is free from serious problems, with the only main maintenance requirement being an occasional rejuvenation pruning. (native)

Beach Heather (*Hudsonia tomentosa*)

Photo: Richard A. Howard Image Collection, courtesy of Smithsonian Institution

Beach heather is a low-growing perennial shrub that thrives in nutritionally poor sand, therefore making it a dominant species in the dune ecosystem. Beach heather is beneficial for other plants because it enriches the soil with nitrogen. Beach heather has scaly leaves covered with fine, hair-like structures that protect the plant from moisture loss due to the wind and the sun's heat. Off the tips of the branches grow clusters of bright yellow flowers. Beach heather functions to stabilize dunes with its carpet-like surface area that catches and holds the sand in place and its network of roots that binds the sediments. (native)

Beach Plum (*Prunus maritima*)

Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Beach plum is a fast-growing, deciduous shrub with an average height of 4 to 7 feet, but can reach heights of 10 to 12 feet in inland, nutrient-rich soils. The plant, which is native to coastal areas of Massachusetts, is adapted to medium fertility, slightly acidic, loamy, and sandy soils. Over time, extensive colonies may develop from a single plant. In spring, snowy white flowers expand before the leaves, which are a dull-green color. The fruit ripens from August to October and can be harvested and processed into jam, syrup, and puree. Because of its tolerance of salt and its deep roots, beach plum is useful for stabilizing sand and landscaping a coastal dune. (native)

Bearberry (*Arctostaphylos uva-ursi*)

Photo: G.A. Cooper, courtesy of Smithsonian Institution

Bearberry, with its leathery, dark, evergreen leaves, small white/pink urn-shaped flowers, bright red berries, and thick growing character, is a popular groundcover/low shrub choice. It grows 6 to 12 inches high and spreads from 3 to 6 feet wide. Over time, bearberry can spread by stem rooting to cover a very large area of up to 15 feet in diameter. The small flowers bloom from April to May and bright red fruits appear from August through the winter. The fruit is eaten by a few species of songbirds and other wildlife. Bearberry has the added benefit of being a very effective stabilizer of steep slopes or exposed areas. It is often planted around home sites, sand dunes, and sandy banks. (native)

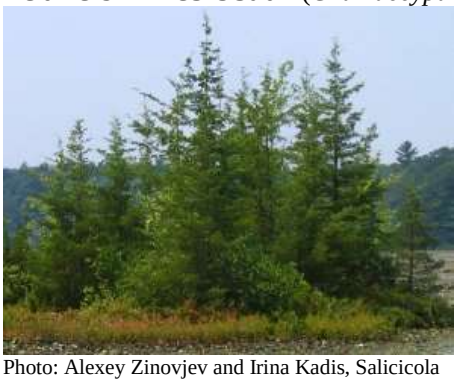
Bigleaf Hydrangea (*Hydrangea macrophylla*)  Photo: University of Connecticut Plant Database	Bigleaf hydrangea is a rounded deciduous shrub with stems that emerge from the ground. This shrub grows 3 to 6 feet tall and wide and has a fast growth rate. The leaves are 4 to 8 inches long, 3 to 6 inches wide, and have a medium-green color. The flowers can be pink, white, blue, or purple, depending on soil type—acidic soil produces blue flowers, alkaline produces pink. The individual flowers make a broad, showy corymb (flat flower head) and bloom July through August. The bigleaf hydrangea prefers morning sun, afternoon shade, and moist, well-drained soil. Avoid planting it on hot, dry sites. Because bigleaf hydrangea is tolerant of salt, it is useful for coastal landscapes. This shrub is also useful as a specimen plant, for groupings, and for foundation plantings, and adds textural variety to a landscape. Maintenance requirements include that the plants be mulched, the stems be pruned after flowering, and young plants be protected in the winter. (not native; native to Japan)
Black Chokeberry (*Aronia melanocarpa*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Black chokeberry is a hardy, multi-stemmed shrub that grows 3 to 6 feet in height and width and tends to form broad thickets. This shrub offers multi-seasonal qualities, including clusters of small white flowers in the spring, high-quality leaves in the summer, and persistent fruit and bright red foliage in the fall. The fibrous root system is very effective at holding soil and is therefore a good choice for erosion control. Black chokeberry is adaptable to many conditions, including sandy and rocky areas, dry or wet soils, and full sun or partial shade. Black chokeberry is not, however, considered drought tolerant. The chokeberries provide ornamental interest through much of winter because the fruit are very astringent to birds and won't be eaten until other fruits are depleted. Chokeberries are edible by humans and are used in many recipes. (This shrub does best when planted away from direct exposure to wind and salt spray.) (native)
Common Juniper (*Juniperus communis* var. *depressa*)  Photo: Gary A. Monroe @ USDA-NRCS PLANTS Database	Common juniper is a dense, native, evergreen tree or shrub that grows on dry, open, rocky, wooded hillsides, exposed slopes, and coastal banks and dunes. Though slow growing, it is extremely cold hardy and tolerant of difficult growing conditions, such as acidic sandy soils, sunny exposure, and wind. The common juniper variety *depressa* is a low-growing, mat-forming evergreen shrub that rarely exceeds 4 feet in height and 8 feet across. Root development can occur when branches come in contact with the ground. Other varieties of common juniper can grow as a tree and reach heights up to 25 feet. Common juniper is valued as an ornamental and is useful as a landscape groundcover, and the berry-like cones provide food for native birds. (native)
Eastern Ninebark (*Physocarpus opulifolius*)  Photo: John Hixson, Lady Bird Johnson Wildflower Center	Eastern ninebark, or common ninebark, is a dense, mound-shaped, deciduous shrub that grows from 3 to 10 feet tall and 4 to 6 feet wide. The individual, white-to-pinkish, 5-petaled flowers that appear on flat-topped clusters from May to June give way to papery clusters of red fruit pods from August to early October. Ninebark is extremely hardy, drought-tolerant, and well adapted to a wide range of soil conditions, including moist to dry sites, gravel to clay textures, and partial shade to full sun. Ninebark is also fast growing and will re-sprout from the base vigorously if cut back. It can be used in a garden border, as a screen, or for erosion control on banks. The common name comes from the excessive peeling of the bark—as if it had nine layers or nine lives. The flowers are an excellent source of nectar for butterflies and bees, and the fruits are eaten by many species of birds. (not native; native to New York south to Florida and west to Colorado)

Elderberry (*Sambucus canadensis*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Elderberry, also known as American elder, is a fast-growing, thicket-forming, deciduous shrub that grows 4 to 12 feet high. Bright green, compound leaves grow on open, arching branches. The small, fragrant white flowers that bloom from late June to August are arranged on terminal clusters. The purple-black berries that ripen from July to September are eaten by at least 50 species of birds and mammals. Elderberry can tolerate a wide range of wet- to dry-soil conditions, but prefers rich, moist, slightly acidic soil and sunny locations. Elderberry is often found bordering streams and in wet forests but can be planted as a hedge or an accent or for effective erosion control on moist sites. The berries are inedible and slightly toxic to humans when raw, yet can be used for making jellies, preserves, pies, and wine. (This shrub does best when planted away from exposure to salt spray.) (native)
Highbush Blueberry (*Vaccinium corymbosum*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Highbush blueberry is a native shrub that stands 6 to 12 feet tall and forms a crown. The flowers bloom in the spring and fruiting occurs from April to October. The berries provide food for many species of birds and mammals. Although the most common native habitat is in and around marshes, swamps, lakes, and flood-prone areas, highbush blueberry also occurs in drier areas, such as dunes and barrier beaches, rocky hillsides, and oak and pine woods. The plants grow in full sun to partial shade, but those in open sites produce more flowers and have brighter fall foliage color. (native)
Inkberry (*Ilex glabra*)  Photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center	Inkberry is a long-living, evergreen shrub that typically grows from 6 to 12 feet high. It has dark green, leathery leaves; small, inconspicuous, greenish-white flowers that bloom March through June; and small, black-blue fruit that appears September through October and persists into the following spring (both male and female plants are necessary for cross pollination and berry production). Inkberry is shade tolerant and grows on a variety of soil types, including both dry and wet sites, and on sandy and heavier, peaty soils. Inkberry spreads by rhizomes and can form clusters and dense thickets. It is useful for shrub borders, foundation plantings, or as a low hedge, and because it also displays a high degree of salt tolerance, is useful in coastal gardens. Because of its ability to perform well in wet sites, it is also excellent for moist woodland gardens or riparian areas. Periodic pruning is recommended to lower the height and rejuvenate this shrub, due to its tendency to get leggy at the base. (native)
Large Cranberry (*Vaccinium macrocarpon*)  Photo: Richard A. Howard Image Collection, courtesy of Smithsonian Institution	Large cranberry is a low-growing vine or trailing shrub that typically grows 4 to 8 inches high and 3 to 4 feet wide. The evergreen leaves are small, leathery, and green in the summer and turn a variety of colors in the fall. The spring flowers yield tart, edible, red fruit from June through August. Cranberry is typically found in wet bogs or swamps with damp, acidic, peaty, well-drained soils. Due to its extensive creeping rhizomes, this plant often forms low, dense mats. Provided with enough moisture and organic matter, cranberry plants can be planted as a low groundcover or as an accent in a shrub or perennial border. (This plant does best when planted away from direct exposure to wind and salt spray.) (native)

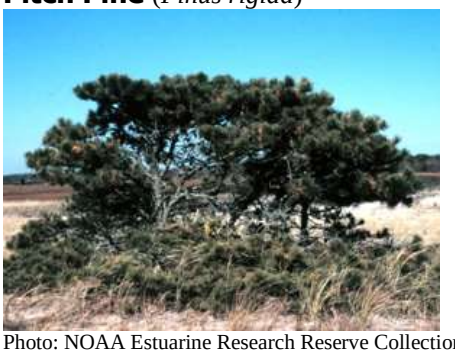
Lowbush Blueberry (*Vaccinium angustifolium*)  Photo: University of Connecticut Plant Database	Lowbush blueberry is a deciduous, twiggy shrub growing 6 inches to 2 feet tall and 2 feet wide. This groundcover has a dark green leaf color, which turns to a brilliant bronze or red in the fall. The urn-shaped, white flowers bloom in May and the bluish-black fruit, which matures in mid- to late-summer, is edible. Lowbush blueberry requires moist soil that is high in organic matter, with a very acidic pH. Sandy soils with adequate moisture will support good growth. Lowbush blueberry thrives in full sun to partial shade, although more sun will produce more blooms and more fruit. Lowbush blueberry is valued for its edible fruit, ability to attract wildlife, and attractive fall color. It can be useful in the landscape as a shrub border and as naturalized plantings. (native)
Marsh Elder (*Iva Frutescens*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Marsh elder, also known as Jesuit's bark, is a perennial, multi-stemmed, deciduous subshrub (short woody plant) that grows from 3 to 8 feet high. It has lance-shaped, succulent leaves and prominent, greenish-white flower heads that appear in the late summer. Marsh elder most often grows in mid to high salt marsh ecosystems, tidelands, and back dune areas, at elevations where the roots are not subject to prolonged flooding. Though adaptable to various soil textures, marsh elder requires moist, saline soils and is not very shade or drought tolerant. Once established, however, it is very low maintenance. Marsh elder is very effective on coastal sites where few other plants will grow. It provides nesting habitat for birds and can serve as shelter for small mammals, particularly during extreme high tides. (native)
Nannyberry (*Viburnum lentago*)  Photo: Douglas Ladd @ USDA-NRCS PLANTS Database	Nannyberry is a native, deciduous, multi-stemmed shrub or small tree (if pruned) that may reach up to 36 feet in height. The leaves, which are 2 to 4 inches long, are dark, glossy green at maturity and change to red in the fall. The small, white flowers that form in a flat-top cluster appear in May through June, and the blue-black, berry-like fruits appear in July through September. Nannyberry is adaptable to a wide range of sites, including moist areas, low woods, or near stream banks, but it also tolerates drier sites. This shrub is a shade-tolerant understory species and is useful in shrub borders, hedges, and windbreaks. The fruits are sweet and edible and are eaten by many species of birds and wildlife. (native)
New Jersey Tea (*Ceanothus americanus*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	New Jersey tea is a shrubby, native, deciduous perennial that grows 3 to 4 feet high and 3 to 5 feet wide. This plant produces multiple, light-green stems and toothed, medium-to-dark green leaves up to 4 inches long. Young twigs are yellow and stand out in winter. New Jersey tea grows best in full or partial sun and average to slightly dry conditions. New Jersey tea is resistant to drought, shriveling under dry conditions, but quickly reviving with the next rainfall. Numerous Native American tribes used New Jersey tea as a beverage and American colonists commonly used this plant as a tea substitute during the Revolutionary War. (native)

Northern Bayberry (*Myrica pensylvanica*)  Photo: NOAA Estuarine Research Reserve Collection, NOAA Photo Library	Northern bayberry is a woody shrub averaging 5 to 7 feet in height, with a thicket-forming character. The dark green leaves are aromatic and may stay on the branches for most of the winter. The flowers and white fruit (which are also aromatic) are somewhat inconspicuous, and the berries are a staple food for many species of wildlife. The native bayberry is adapted to a wide variety of soil conditions, but does best on light-textured soils—it spreads naturally into bare sandy soils. Since it does form thickets, bayberry is useful for erosion control and wildlife shelter. (native)
Red Chokeberry (*Aronia arbutifolia*)  Photo: University of Connecticut Plant Database	Red chokeberry is native throughout most of the eastern United States and is found in various habitats from dry hillsides to wetland areas. This deciduous shrub grows from 6 to 10 feet tall and 3 to 5 feet wide. It is a suckering, spreading, colonizing shrub with numerous, slender stems. Red chokeberry is tolerant of partial shade and of both dry and wet sites. It can be transplanted easily and is valued for its summer flowers, persistent fruit, and colorful fall foliage. It is useful for naturalistic plantings, bank and dune stabilization, colonization and mass plantings, or borders in a garden. (native)
Shrubby Cinquefoil (*Potentilla fruticosa*)  Photo: Patrick J. Alexander @ USDA-NRCS PLANTS Database	Also known as bush cinquefoil, this deciduous shrub typically grows 2 to 4 feet high and has a mound-shaped form and compound pinnate leaves. The five-petaled, bright-yellow flowers have a long blooming period, often appearing in the spring and continuing through early fall. Though shrubby cinquefoil does best in fertile, medium-moisture, well-drained soils in full sun, established plants grow well in a wide range of conditions, are fairly resistant to drought and saline soils, and are tolerant of some shade. Shrubby cinquefoil is also very tolerant of cold. The dense growth of this shrub provides cover for wildlife, the seed capsules provide fall and winter food for birds, and the flowers provide an excellent source of nectar for bees and butterflies. (native)
Sweet Fern (*Comptonia peregrina*)  Photo: University of Connecticut Plant Database	Sweet fern is a low-growing, deciduous native shrub that is 2 to 4 feet in height, with sweet-scented, fern-like leaves that are particularly aromatic when crushed. Sweet fern is a loosely branched, spreading, and colonizing plant. The flowers are small, inconspicuous catkins that bloom from April to May. Sweet fern is extremely cold hardy and prefers acidic, sandy, or peaty soils with low fertility, but does not tolerate shading. Sweet fern produces many underground stems or rhizomes, making it an effective groundcover for erosion control on steep, sandy banks and for species diversity in sterile, sandy soils. (native)

Sweet Pepperbush (*Clethra alnifolia*)  Photo: Nelson DeBarros @ USDA-NRCS PLANTS Database	Sweet pepperbush, also known as coastal sweet pepperbush or summer sweet, is a deciduous, upright, multi-stemmed shrub that grows from 6 to 12 feet high. The green leaves that appear on the stems in late spring turn a golden yellow in the fall. The fragrant, bottlebrush-like flower spikes, which appear in July and August and last up to 6 weeks or more, are followed by tiny, brown seed capsules that persist through winter. Sweet pepperbush is moderately salt tolerant, highly shade tolerant, and well adapted to poorly drained, moist soils, though it can also do well on drier, well-drained sites once established. The thicket-forming character of sweet pepperbush is useful for providing erosion control along embankments, streams, and ponds, and its adaptability to wet areas makes it a good plant for low spots, rain gardens, and stream banks. Sweet pepperbush is also very useful as a garden plant, shrub border, or foundation plant, particularly if pruned to size. The attractive and fragrant flowers and nectar attract hummingbirds and butterflies and the seeds are eaten by birds and mammals. (native)
Virginia Creeper (*Parthenocissus quinquefolia*)  Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center	Virginia creeper is a woody, deciduous vine that can climb to heights up to 100 feet on trees or other tall structures or form a dense ground cover. This vigorously growing vine climbs by means of tendrils with disks that fasten onto the host surface. The ornamental, five-part leaves emerge purplish in spring, mature to green in summer, and change to purple or mauve/red in fall. Virginia creeper is fairly shade tolerant and salt tolerant and can thrive in a wide range of soil types, including the dry conditions found on coastal dunes. Though it has a rather open canopy, Virginia creeper can be useful as an erosion control measure because of its sprouting and spreading character. Virginia creeper also provides cover for many small birds and mammals and the blue berries that appear in August to October are eaten by songbirds. (Note: The berries are highly toxic to humans and may be fatal if eaten.) (native)
Virginia Rose (*Rosa virginiana*)  Photo: University of Connecticut Plant Database	Virginia rose is a native shrub, growing 2 to 6 feet high, with many spreading branches, thorny stems, and attractive flowers. The dark green, toothed leaves turn purplish-red in the fall. The fragrant 2- to 3-inch diameter flowers are pink with yellow centers and bloom from June through August. Many insects that visit the rose blooms for nectar help pollinate the flowers that later become rose hips. The ½-inch-wide rose hips stay on the plant through winter, are edible, are high in Vitamin C and essential fatty acids, are a good food source for many animals, and can be used to make teas and medicines. Virginia rose prefers full sun and well-drained, acidic soil (but can also survive in moist soils). Virginia rose is easy to transplant and grow, is tolerant of salt, and does well under winter conditions, making it a good specimen for seaside planting. The thicket-forming character provides a great hedge and good cover for birds and other animals. (native)
Wild Raisin (*Viburnum nudum* var. *cassinoides*, formerly *Viburnum cassinoides*)  Photo: Stefan Bloodworth, Lady Bird Johnson Wildflower Center	Wild raisin, also known as northern wild raisin, witherod viburnum, or possumhaw, is a dense, multi-stemmed, deciduous shrub that grows 6 to 12 feet high. The showy, fragrant, white flowers are arranged in flat-topped clusters and bloom in the spring and early summer. The fruit that follows is pink/red in the summer, blue in late summer, black by fall, and will remain on the shrub even after the foliage has fallen. The foliage of the shrub also provides attractive fall color. Wild raisin is commonly found in swamps or moist upland woods and clearings and is more tolerant of wet soils than other viburnums. This shrub is relatively shade tolerant, but not salt tolerant. The fruit attracts songbirds, shorebirds, and mammals and is also edible by humans. This shrub is useful along wetlands or pond edges, or as a foundation plant, screen, windbreak, or hedge barrier. (This shrub does best when planted away from direct exposure to wind and salt spray.) (native)

Winterberry (*Ilex verticillata*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Winterberry is a medium-sized, multi-stemmed, deciduous shrub that grows to heights of 5 to 15 feet. The smooth, sharply toothed leaves are dark green in summer, turn yellow in autumn, and fall off by mid-October. The highlight of this shrub is the densely packed, bright scarlet-red berries that mature in late summer and persist through the winter. The striking berries on bare stems make an attractive fall and winter display (if not thoroughly foraged by animals). The fruit, though eaten by many species of birds and mammals, is poisonous to humans. Winterberry is tolerant of a wide range of soil conditions, including wet soils, making it effective in a rain garden. (This shrub does best when planted away from direct exposure to salt spray.) (native)
Trees	
American Holly (*Ilex opaca*)  Photo: University of Connecticut Plant Database	American holly is a long-living, pyramidal, broad-leaved, evergreen tree that ranges in height from 25 to 60 feet with dark green leaves and stiff, horizontal branches. The new growth in the spring pushes off the older leaves. Bright red berries ripen in October and persist through the winter (both male and female trees are necessary for cross pollination and berry production). American holly can tolerate both moist, fertile soils and dry, sandy soils, with the poorer soils leading to a smaller-sized tree. This tree can grow in shaded woods and stream banks, uplands or lowlands, and as an understory to other trees. American holly is useful as a screen, in mass plantings, or as a specimen tree. The dense growth provides good cover and nesting sites for birds and the berries attract many small mammals and birds (though the berries are poisonous to humans). The berries and evergreen leaves provide excellent winter color and are often used for cuttings and ornamental interest. (American holly does best when planted away from direct exposure to salt spray and wind.) (native)
Atlantic White Cedar (*Chamaecyparis thyoides*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Atlantic white cedar is a tall, narrow, columnar, coniferous, evergreen tree that grows from 40 to 75 feet high. It has short, horizontal branches and blue-green, scale-like leaves that spread out in a fan-like appearance. At maturity, the branches are only present in the upper portion of the tree. The brown cones, which contain 1 to 5 winged seeds, mature in September and October at the end of the first growing season. Atlantic white cedar prefers moist, sandy soils and full sun, but is tolerant of a wide range of soils and conditions, including acidic soils, flood inundation, and saline soils. This tree is not tolerant of shade, needs to be protected from high winds, and needs sufficient moisture to become established. It usually grows in very dense, solid stands in and around swamps and bogs and is best known as the dominant tree in the Atlantic white cedar swamps along the Atlantic Coast. Its preference for wet sites makes it suitable for low, wet areas of yards and wetland or naturalized areas. The commercial availability of this tree is limited (various cultivars can be found more easily). (Atlantic white cedar does best when planted away from salt spray and wind.) (native)
Black Cherry (*Prunus serotina*)  Photo: University of Connecticut Plant Database	Black cherry is a deciduous tree with a dense oval crown and pendulous branches. This rapid-growing tree reaches from 60 to 90 feet tall and 35 to 50 feet wide. In the spring, black cherry produces fragrant white flowers on pendulous stems. The berry-like fruits mature in the late summer. This tree prefers deep, moist, fertile soil, but is tolerant of salt and drought and thrives in full sun to part shade. Black cherry is one of the most valued cabinet and furniture woods in North America. The fruits are important food for numerous bird species and mammals, including the red fox, black bear, raccoon, opossum, squirrel, and rabbit. (native)

Black Tupelo (*Nyssa sylvatica*)  Photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center	Black tupelo, or black gum, is a slow-growing, deciduous tree that grows from 30 to 60 feet (occasionally up to 90 feet) tall with dense foliage, horizontally spreading branches, and a conical or sometimes flat-topped crown. The green leaves are leathery, glossy, and densely clustered and turn a brilliant yellow, orange, or scarlet color in the fall. The small, greenish-white flowers bloom in early spring and are an excellent source of nectar for bees and other pollinating insects, which in turn attract many species of birds that feed on the insects. The small, blue, sour-tasting berries are also an attraction for birds. Tupelo grows best on well-drained, light-textured soils but is tolerant of both wet and dry sites and can even grow in standing water. This tree is also tolerant of various acidity levels in the soils and is moderately tolerant of salinity. Because of its adaptability to wet sites, this tree is useful in low areas of the yard that are subject to periodic flooding or in rain gardens. It can also be used as an ornamental shade or street tree. The nectar of the tupelo tree is valued for honey production by bees. (native)
Downy Serviceberry/Shadbush (*Amelanchier arborea*)  Photo: G.A. Cooper, courtesy of Smithsonian Institution	Downy serviceberry is a deciduous, shrub-like tree reaching heights of 10 to 25 feet. The oval leaves emerge a downy gray and mature to a dark green in the summer. The fall foliage is showy with orange, gold, red, and green. The clusters of white flowers grow at the branch tips before the leaves appear. Downy serviceberry grows in a variety of habitats, including swamps, dry woods, sandy bluffs, rocky ridges, forest edges, and fields. Many bird species (such as cardinals, cedar waxwings, towhees, and Baltimore orioles) and mammal species (such as rabbits, mice, fox, black bears, and deer) eat the fruit. The fruits taste similar to but slightly tarter than blueberries. Downy serviceberry is often confused with shadblow serviceberry (*A. canadensis*), which is multi-stemmed and more shrub-like and tolerant of wet soils. (native)
Eastern Red Cedar (*Juniperus virginiana*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Eastern red cedar is a native evergreen that grows 10 to 40 feet high with a pyramidal shape that becomes rounder with age. It is tolerant of salt and dry soils and is good for both exposed areas and sheltered coastal areas. The light-blue berries are an important food source for many birds and large and small mammals. In addition, cedars provide important protective cover for nesting, roosting, and winter shelter. Eastern red cedar is excellent as a specimen planting and useful in masses for windbreaks and screening. The leaves, roots, and berries of the red cedar have been used by the Native Americans for centuries as a botanical cure for many ailments, including asthma, colds, fevers, and hyperactivity, and for general cleansing and healing. (native)
Gray Birch (*Betula populifolia*)  Photo: Wikimedia Commons	Gray birch is a small to medium, fast-growing, deciduous tree that reaches 20 to 40 feet in height with a 10 to 20 foot spread. Gray birch is native to the northeastern United States and can be found growing on sandy soils or as an early colonizer on nutrient-deficient and dry sites. The tree often has multiple trunks branching off a main trunk. The dark green summer foliage generally leafs out early and is yellow and showy in the fall. The bark is reddish brown when young and transitions to a grayish-white color with black triangular patches where the branches meet the trunk. Gray birch is a useful tree for difficult sites or in naturalized areas. The birch seeds provide food for birds, such as goldfinches and other small-seed eaters. (native)

Green Ash (*Fraxinus pennsylvanica*)  Photo: Alexey Zinovjev and Irina Kadis, Salicicola	Green ash is a hardy, fast-growing, medium-sized deciduous shade tree that grows from 50 to 75 feet tall with an open, spreading form and a rounded-to-irregular crown. The green leaves that are opposite and pinnately compound turn yellow in the fall. The fertilized flower clusters (of the female tree) that bloom April to May are followed by drooping clusters of dry, winged samaras in the fall that may persist through winter. Green ash prefers consistently moist, loamy soils, but can grow in a wide range of soils and growing conditions. It will tolerate seasonal flooding, but is intolerant of shading. This ash is typically found in low woods, floodplains, and riparian areas. Green ash can be planted as a windbreak or as a lawn, street, or shade tree on difficult growing sites. (Green ash does best when planted away from direct exposure to salt spray.) (native)
Pitch Pine (*Pinus rigida*)  Photo: NOAA Estuarine Research Reserve Collection, NOAA Photo Library	The native pitch pine is variable in form with short and poorly formed trees growing on dry, exposed sites and straight, medium-sized trees reaching 80 feet tall growing on protected, nutrient-rich sites. The evergreen needles are 2.5 to 5 inches long with three needles in a bundle. Cones mature in the fall and are often persistent for many years. The pitch pine occupies a variety of habitats from dry, acidic, sandy uplands to swampy lowlands and can survive in very poor conditions. This pine is also well known for its ability to survive fires. Since the trees will grow in dry, rocky, or sandy soils, they are often used for reforestation or stabilization where few other trees will grow. (native)
Red Maple (*Acer rubrum*)  Photo: University of Connecticut Plant Database	Red maple is a wide-ranging, native, deciduous tree that typically grows from 40 to 70 feet tall but can reach heights of more than 100 feet. The shape of red maple becomes more rounded or oval with age. Red maple is often one of the first trees to change color, with colors that vary from greenish yellow to vibrant scarlet to burgundy. The flowers, which bloom in late March or April, can also be red or orange. The fruit, or winged seeds known as samaras, are one of the smallest of the native maples at less than an inch in length. Red maples are relatively fast growing, tolerant of many conditions, and adaptable. They do best in full sun but can tolerate partial shade; they prefer moist, acidic soils and tolerate occasional flooding and wet soils. Red maples are useful as shade trees, for wet sites, for their striking fall foliage, and for their wildlife value—their seeds provide food for squirrels and birds. (native)
Sassafras (*Sassafras albidum*)  Photo: Luba Batuner, Alexey Zinovjev, and Irina Kadis, Salicicola	Sassafras is a deciduous tree that grows 35 to 50 feet high with an attractive, horizontal-branching pattern & an interesting, ridged, red-brown bark. The bright green leaves, which are variable in shape (ovate; two-lobed, oval, & mitten-shaped; or three-lobed) turn a bright-yellow or red-orange color in the fall. The green twigs & leaf stalks have a pleasing & spicy aroma. The fragrant flowers, which bloom before the leaves appear in the spring, look like yellow-green, balled clusters on the female tree & are inconspicuous on the male tree. In late summer and fall, the female trees produce small, dark blue, oval fruits that are readily eaten by wildlife (though fruiting is documented as rare in Massachusetts). Sassafras does best in moist, fertile soils in partial to full shade, but can tolerate a wide range of soils, including dry, sandy soils. Sassafras can spread by root suckering to form large thickets & is therefore useful for erosion control or on disturbed sites. If roots suckers are cut, sassafras can also be planted as a low maintenance specimen tree. The fragrant flowers attract birds, bees, & butterflies and the fall foliage is striking. Sassafras has been cultivated since 1630 for its leaves, bark, and wood for medicinal uses and for items such as soaps, perfumes, & teas. (native)

White Oak (*Quercus alba*)

Photo: J.S. Peterson @ USDA-NRCS PLANTS Database

White oak is a large, durable, and long-living deciduous shade tree that can grow over 100 feet tall and up to 60 to 80 feet wide. White oak has a broad, round crown and wide-spreading branches with dense foliage that turns an attractive red-violet color in the fall. This oak has a deep root system, which makes it fairly tolerant of a range of soil conditions and fairly drought resistant when well established. White oak performs best on coarse, moist, well-drained, slightly acidic soils with medium fertility. White oak is moderately resistant to salt spray and even temporary salt-water submergence. The acorns are a food source for many small mammals and birds. The high-grade wood of this oak is used for furniture, flooring, interior woodwork, and even shipbuilding. White oak needs room to grow and has a low tolerance for soil compaction and changes in soil levels. (native)

Photographs and data courtesy of:

Dr. Mark H. Brand. 2008. University of Connecticut Plant Database of Trees, Shrubs, and Vines. Department of Plant Science, University of Connecticut, Storrs, CT. (http://www.hort.uconn.edu/plants)
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Wikimedia Commons. 2010. (http://commons.wikimedia.org)

A ***native plant species*** is a plant that is considered indigenous and naturally occurring to the region since pre-Colonial times (before 1500) or arriving more recently without human intervention. For purposes of this website, a native plant is one that occurs naturally in eastern Massachusetts.

A ***non-native plant species*** is a plant that is non-indigenous and not naturally occurring to the region. (For purposes of this website, the region is eastern Massachusetts with an emphasis on the coastal environments.) When non-native species enter into an ecosystem, they have the potential to disrupt the natural balance, reduce biodiversity, degrade habitats, alter native genetic diversity, and transmit exotic diseases to native species. However, not all non-native plants are invasive. Non-native plants that are not considered invasive are those that generally do not rapidly disperse, become established, or create self-sustaining or dominant populations that would be disruptive to the natural ecosystem. CZM recommends the use of natives wherever possible but has included certain non-native species in this website that have specific coastal landscaping advantages and no known environmental impacts. Be sure to check the most recent sources of Invasive Species information.

Rugosa rose (*Rosa rugosa*) is considered to be non-native (native to eastern Asia) and ***potentially invasive*** in some regions or habitats of Massachusetts and may displace desirable vegetation if not properly managed. The shrub is often planted on coastal sites because it is extremely tolerant of sea spray and storms, making it well adapted to the coastal environment. On dune sites, the shrub is useful for erosion control and stabilization and because of its thorny stems can also be strategically planted to direct pedestrians away from or between sand dunes. However, because of its ability to spread by seeds and by rhizomes, it has an ability to outcompete and displace other native beach and dune plants. In addition, on bank sites, rugosa rose is less effective at controlling erosion and may in fact worsen the problem when other more effective erosion control plants are unable to grow due to shading effects. Therefore, care should be taken when considering planting rugosa rose on coastal properties.

Complementary Content

CZM HOME
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Coastal Landscaping